



FAAC

Simply automatic.

Perimeter Protection 2021 Offer

FAAC
Simply automatic.



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- J275 2K20 Range
- JS Range
- Phase in / Phase out Plan



Perimeter Protection 2021 Offer

FAAC DECIDED TO RAISE THE BAR OF HIS PERIMETER PROTECTION OFFER IN 2021

The entire perimeter security range has been redesigned



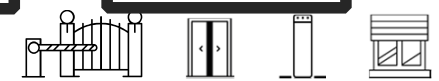
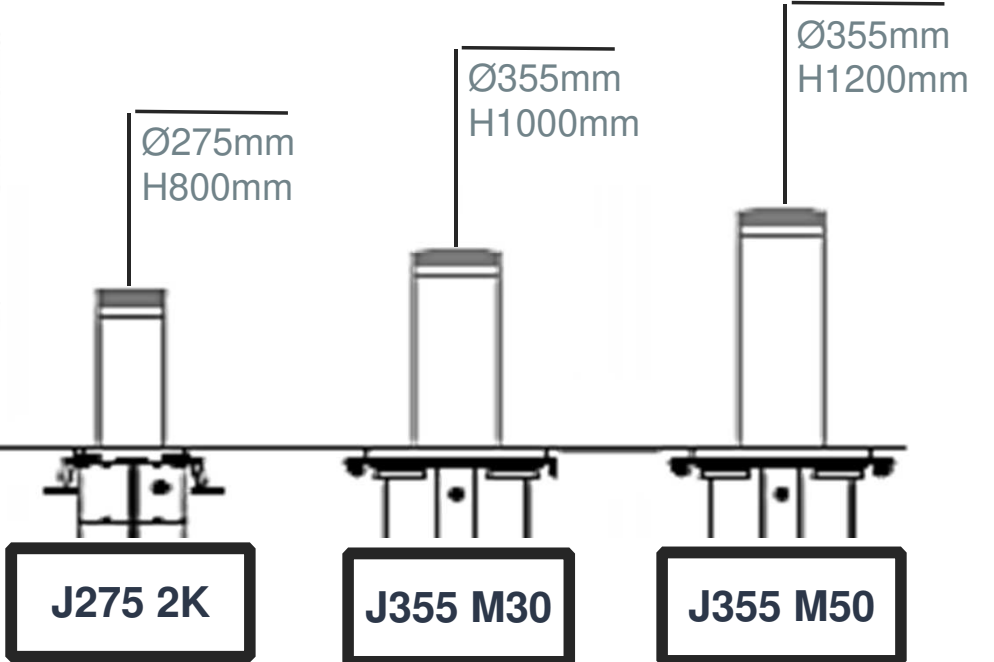
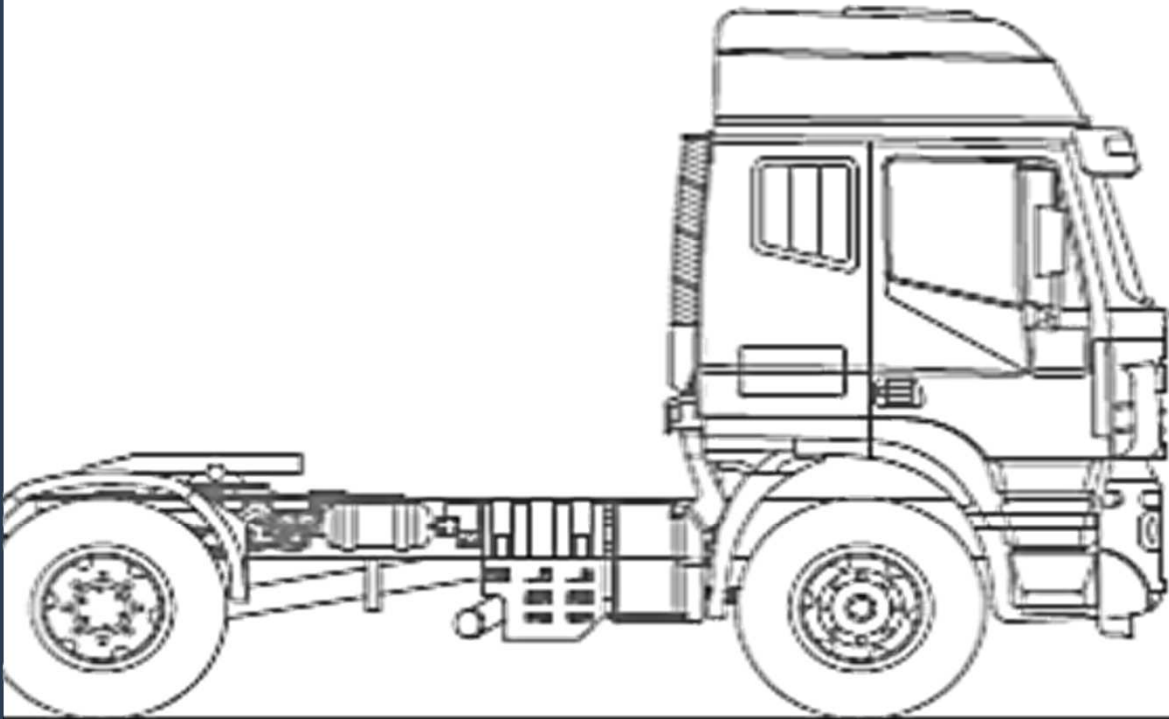
Perimeter Protection 2021 Offer



Perimeter Protection 2021 Offer

FAAC segmented his anti-crash offer in 3 different product lines:

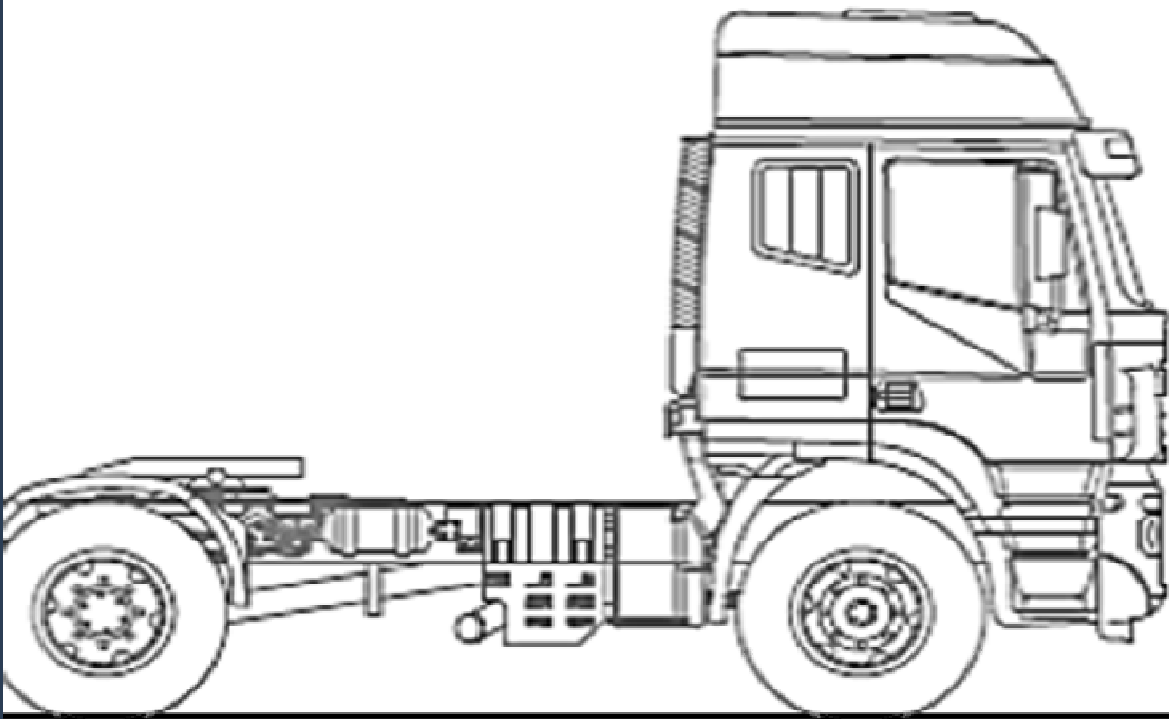
FAAC 2020 Perimeter Protection Offer



Perimeter Protection 2021 Offer

FAAC segmented his anti-crash offer in 3 different product lines:

FAAC 2021 Perimeter Protection Offer



Ø275mm
H800mm

Ø275mm
H1000mm

Ø275mm
H1000mm

J275
2K20

JS 48

JS 80



Perimeter Protection 2021 Offer

	J275 2K	J355 M30	J355 M50
Height	800mm	1.000mm	1.200mm
Diameter	275mm	355mm	355mm
Available finishing			
Painted	✓	✓	✓
Stainless steel	✓	✓	✓
Available versions			
HA	✓	✓	✓
HA EFO	✗	✓	✓
F	✓	✓	✓
R	✗	✗	✗
Crash Resistance			
Rating mass	6.800kg Truck	6.800kg Truck	7.500kg Truck
Rating speed	48km/h	48km/h	80km/h
HA Testing	Simulation 2 Units	Crash Test Single Unit	Crash Test Single Unit
F Testing	Simulation Single Unit	Simulation 2 Units	Simulation 3 Units
R testing			
ASTM F2656M	✓	✓	✗
PAS68	✗	✗	✓
IWA 14-1	✗	✗	✓
Operational after impact	✗	✗	✗

FAAC 2020
Perimeter Protection Offer

Perimeter Protection 2021 Offer

	J275 2K20	JS 48	JS 80
Height	800mm	1.000mm	1.000mm
Diameter	275mm	275mm	275mm
Available finishing			
Painted	✓	✓	✓
Stainless steel	✓	✓	✓
Available versions			
HA	✓	✓	✓
HA EFO	✗	✓	✓
F	✓	✗	✓
R	✗	✓	✓
Crash Resistance			
Rating mass	7.500kg Truck	7.500kg Truck	7.500kg Truck
Rating speed	48km/h	48km/h	80km/h
HA Testing	Crash Test 2 Units	Crash Test Single Unit	Crash Test Single Unit
F Testing	Simulation Single Unit		Crash Test Single Unit
R testing		Crash Test Single Unit	Crash Test Single Unit
ASTM F2656M	✗	✓	✓
PAS68	✓	✓	✓
IWA 14-1	✓	✓	✓
Operational after impact	✗	✓	✓

FAAC 2021
Perimeter Protection Offer



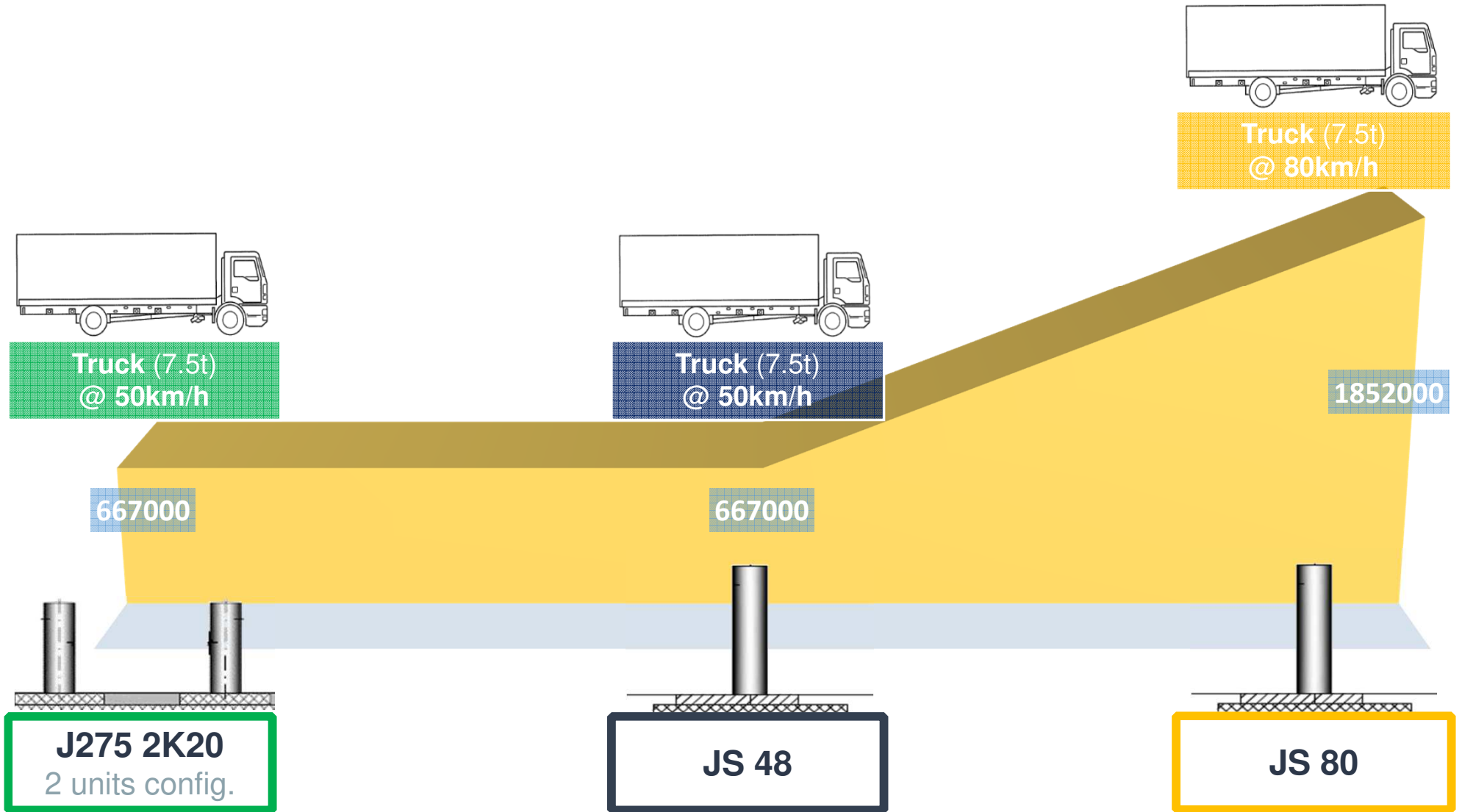
not be forwarded to third parties

Perimeter Protection 2021 Offer

	J275 2K	J355 M30	J355 M50
Height	800mm	1.000mm	1.200mm
Diameter	275mm	355mm	355mm
Available finishing			
Painted	✓	✓	✓
Stainless steel	✓	✓	✓
Available versions			
HA	✓	✓	✓
HA EFO	✗	✓	✓
F	✓	✓	✓
R	✗	✗	✗
Crash Resistance			
Rating mass	6.800kg Truck	6.800kg Truck	7.500kg Truck
Rating speed	48km/h	48km/h	80km/h
HA Testing	Simulation 2 Units	Crash Test Single Unit	Crash Test Single Unit
F Testing	Simulation Single Unit	Simulation 2 Units	Simulation 3 Units
R testing			
ASTM F2656M	✓	✓	✗
PAS68	✗	✗	✓
IWA 14-1	✗	✗	✓
Operational after impact	✗	✗	✗

J275 2K20	JS 48	JS 80
800mm	1.000mm	1.000mm
275mm	275mm	275mm
✓	✓	✓
✓	✓	✓
✓	✓	✓
✗	✓	✓
✓	✗	✓
✗	✓	✓
7.500kg Truck	7.500kg Truck	7.500kg Truck
48km/h	48km/h	80km/h
Crash Test 2 Units	Crash Test Single Unit	Crash Test Single Unit
Simulation Single Unit		Crash Test Single Unit
	Crash Test Single Unit	Crash Test Single Unit
✗	✓	✓
✓	✓	✓
✓	✓	✓
✗	✓	✓

Perimeter Protection 2021 Offer



Perimeter Protection 2021 Offer

RETRACTABLE BOLLARDS



Height:

Available versions:

EFO Version:

Certified according to:

Able to arrest a:

**J275 2K20
HA**

**JS 48
HA**

**JS 80
HA**

800mm

1.000mm

1.000mm

Painted steel
Stainless steel

mDure
mDure + stain.steel

mDure
mDure + stain.steel

✗

✓

✓

PAS68
IWA 14-1

ASTM F2656M
PAS68
IWA 14-1

ASTM F2656M
PAS68
IWA 14-1

Truck (7.500kg)
@50km/h
2 units config.

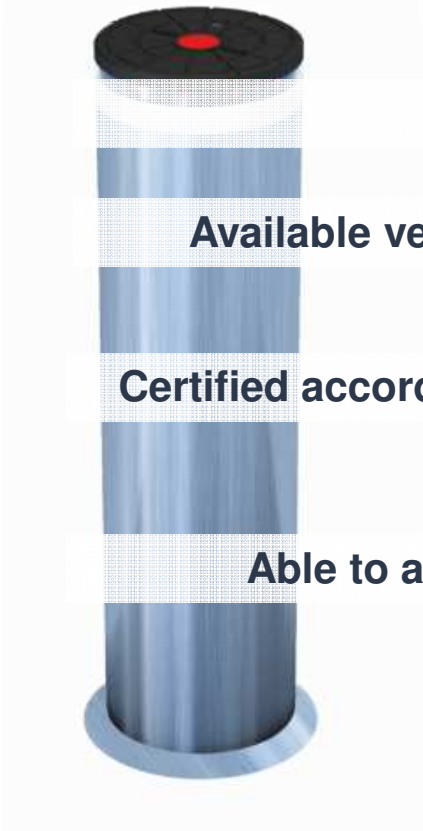
Truck (7.500kg)
@50km/h

Truck (7.500kg)
@80km/h



Perimeter Protection 2021 Offer

STATIC BOLLARDS



Height:

Available versions:

Certified according to:

Able to arrest a:

**J275 2K20
F**

**JS 80
F**

800mm

1.000mm

Painted steel
Stainless steel

mDure
mDure + stain.steel

ASTM F2656M
dynamic simulation

ASTM F2656M
PAS68
IWA 14-1

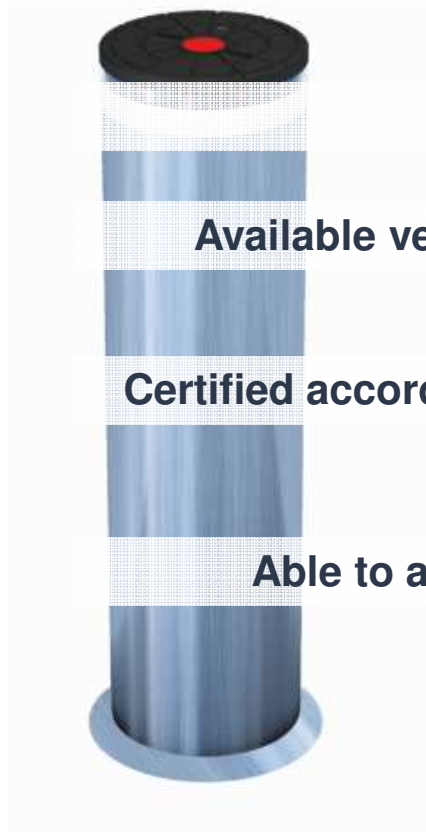
Truck (6.800kg)
@50km/h

Truck (7.500kg)
@80km/h



Perimeter Protection 2021 Offer

REMOVABLE BOLLARDS



Height:

Available versions:

Certified according to:

Able to arrest a:

**JS 48
R**

**JS 80
R**

1.000mm

1.000mm

mDure
mDure + stain.steel

mDure
mDure + stain.steel

ASTM F2656M
PAS68
IWA 14-1

ASTM F2656M
PAS68
IWA 14-1

Truck (7.500kg)
@50km/h

Truck (7.500kg)
@80km/h



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- Phase in / Phase out Plan



J275 2K20



J275 2K20 RANGE:

AUTOMATIC – HA

J275 2K20 HA PAINTED STEEL

J275 2K20 HA STAINLESS STEEL

STATIC - F

J275 2K20 F PAINTED STEEL

J275 2K20 F STAINLESS STEEL

REMOVABLE - R



J275 2K20

J275 2K20 HA Hydraulic Automatic



Certificate

of passed Barrier Testing Programme



Certificate No.: TC 11504-3605-19407-EN
Date of certification: 24-SEP-2020

Contracting Client:
FAAC S.p.A.
Via Calari 10
40069 Zola Predosa (BO)
Italy

Type of Product:
Test Standard:

Movable Twin Bollard J275 2K20 HA
BSI PAS 68:2013
IWA 14-1:2013

Test Standard Classification:

PAS 68: N2 - 48 km/h
IWA 14-1: N2A - 48 km/h

Test Date:

08-SEP-2020

Vehicle restrained:

Yes No

Vehicle immobilized:

Yes No

Vehicle advanced beyond Barrier:

Yes No

Test Vehicle Kinetic Energy at Impact:

645 kJ

Performance Classification PAS 68:

Movable Twin Bollard V7500[N2]W490 1.7/0.0

Performance Rating IWA 14-1:

Movable Twin Bollard V7200[N2A]W490 1.9

Only valid in connection with CTS-Test Report No.:

11504-3605-19407-EN

If completely changed this certificate will be replaced by certificate no.:

TC 11504-3605-19407-3-EN

Sincerely



Peter Schimmelplennig
Dipl.-Ing. Peter Schimmelplennig
Head of Laboratory

Dipl.-Ing. Peter Schimmelplennig (Managing Partner/Head of Laboratory)

J275 2K20 HA has been certified in accordance with:

- PAS 68: 2013
- IWA 14-1:2013

The crash test has been carried out and passed in a **2 units configuration**, with performance classifications:

- PAS 68:2013 - V/7500[N2]/48/90:1.7/0.0
- IWA 14-1:2013 - V/7200[N2A]/48/90/1.9

= able to stop a 7.500 Kg truck driving at 48Km/h



J275 2K20

J275 2K HA Vs J275 2K20 HA - Certification

J275 2K HA

Tested with **Dynamic Simulation**

In **2 units** configuration

According to **ASTM F2656**

To stop a **6.8t [M30]** truck

@48kmh

J275 2K20 HA

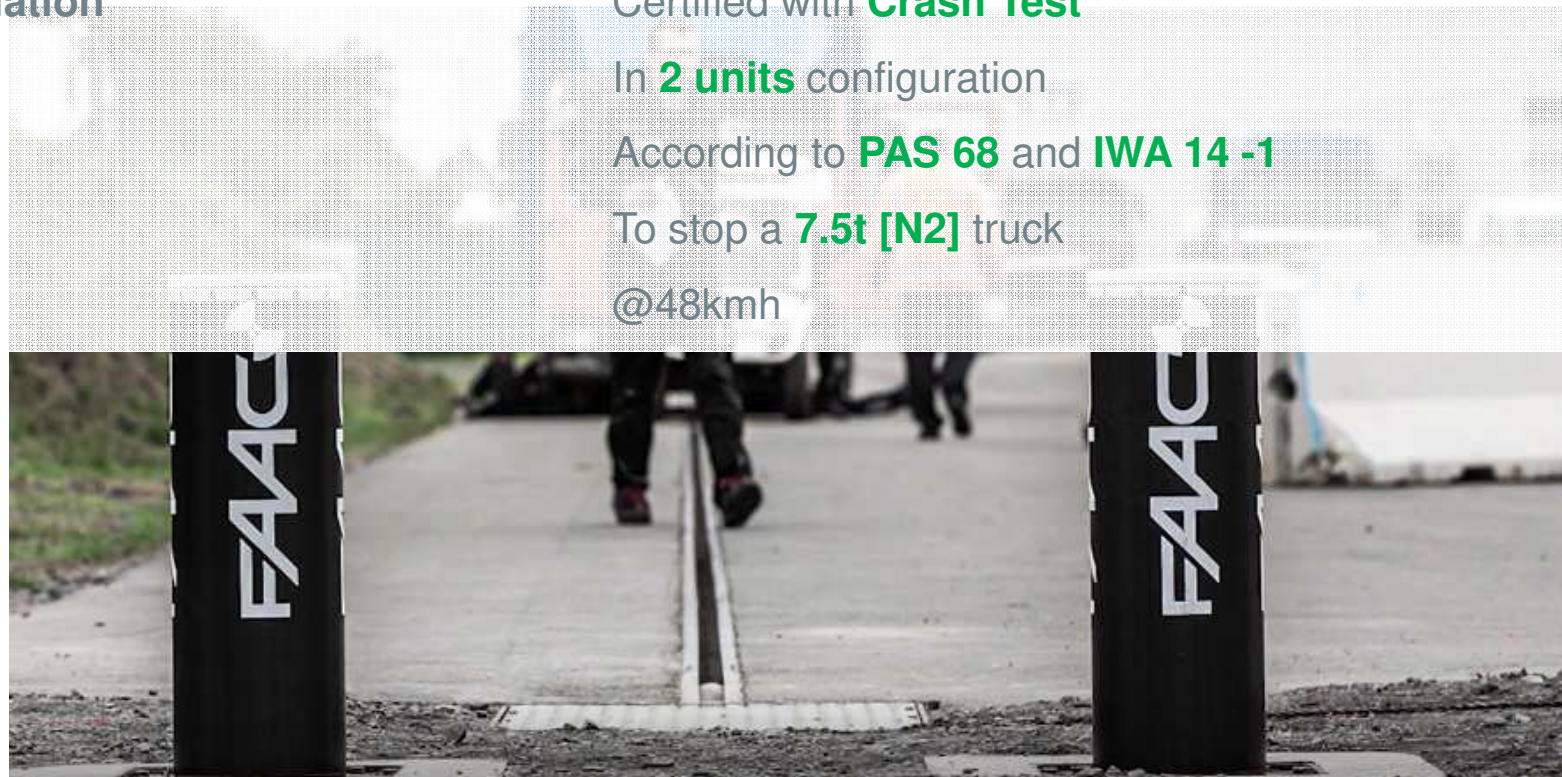
Certified with **Crash Test**

In **2 units** configuration

According to **PAS 68** and **IWA 14 -1**

To stop a **7.5t [N2]** truck

@48kmh

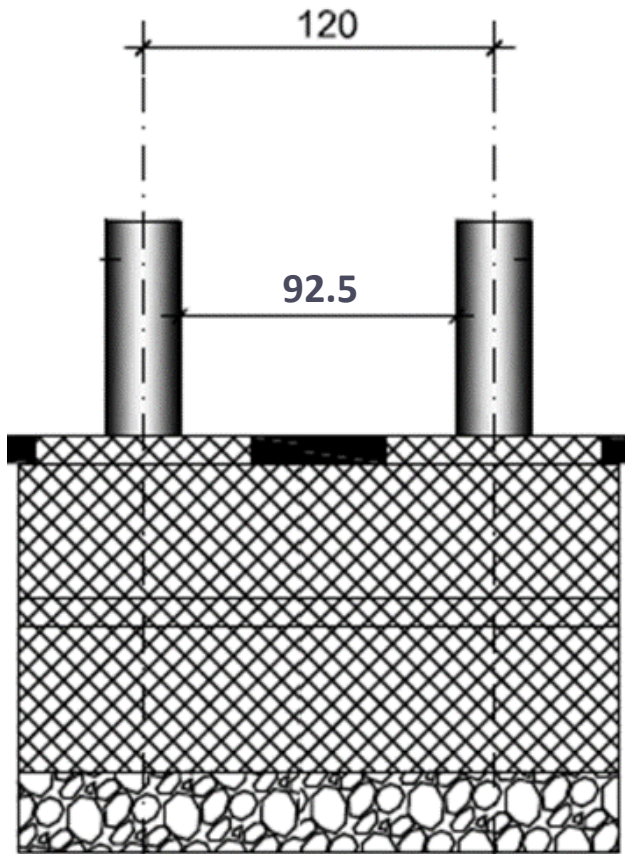


J275 2K20

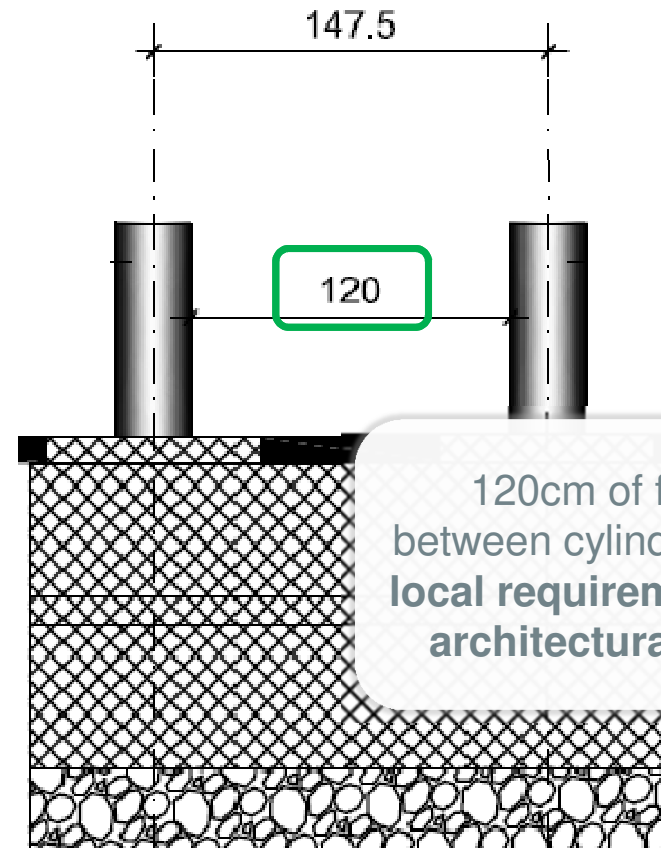


J275 2K HA Vs J275 2K20 HA - Foundation drawings

J275 2K HA



J275 2K20 HA



120cm of free gap between cylinders to meet local requirements about architectural barriers



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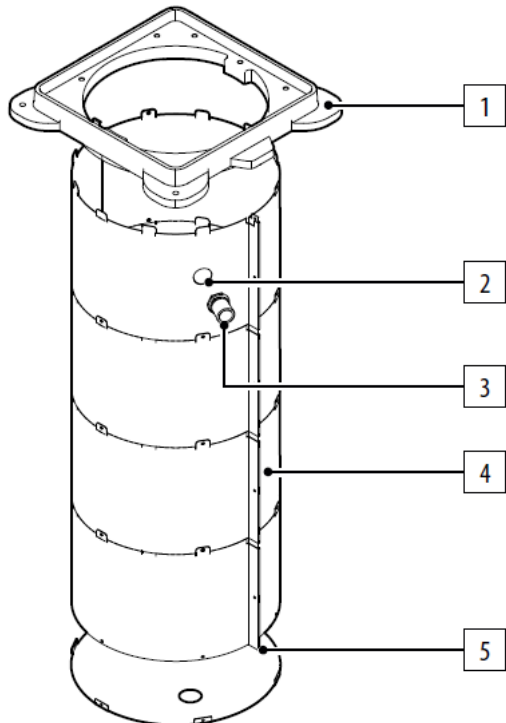
J275 2K20

J275 2K HA Vs J275 2K20 HA - Dedicated pit



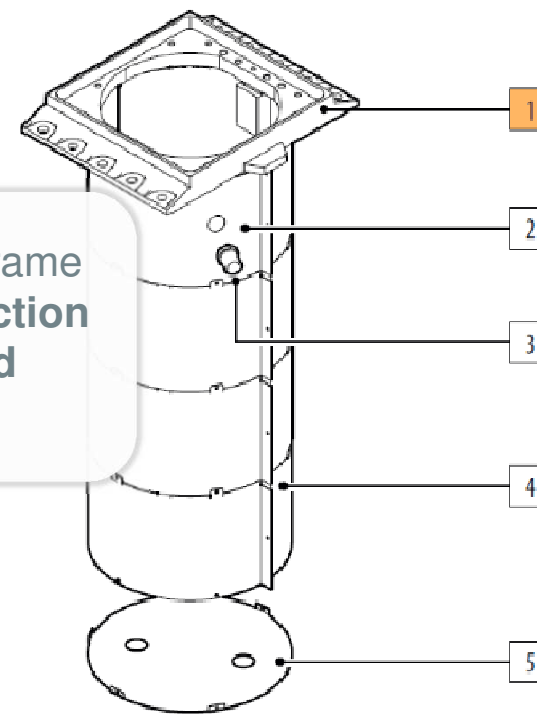
J275 2K HA

Employs J275 HA V2 Pit

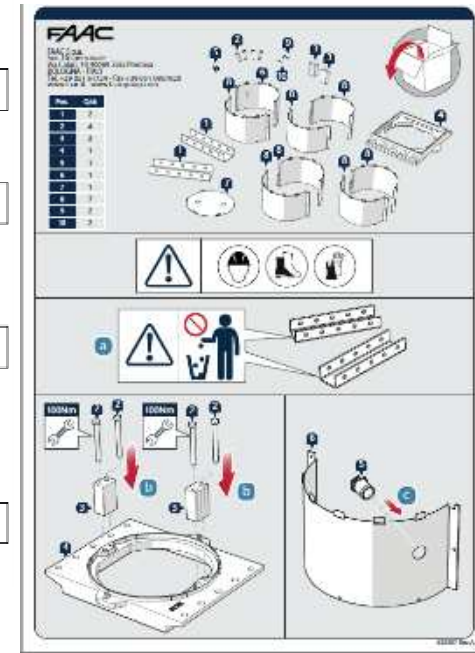


J275 2K20 HA

Employs a **dedicated pit**



Dedicated counter-frame for an easier connection to the reinforced foundation



J275 2K20

J275 2K HA Vs J275 2K20 HA - Dedicated pit



Dedicated J275 2K20 HA
pit supplied with
reinforcing C Bars



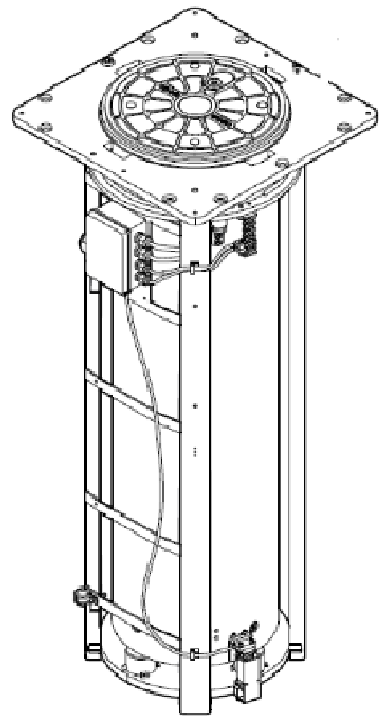
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J275 2K20

J275 2K HA Vs J275 2K20 HA - Improvements

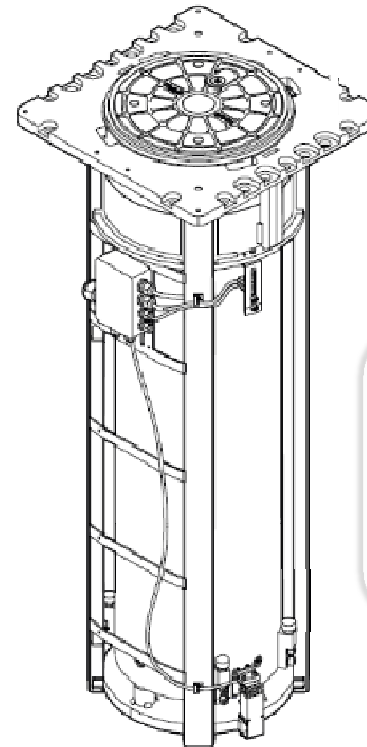


J275 2K HA



Modified Frame

J275 2K20 HA



J275 2K20 HA bollard
is still compatible with
former pits
(possible replacement)



J275 2K20



J275 2K HA Vs J275 2K20 HA - Improvements

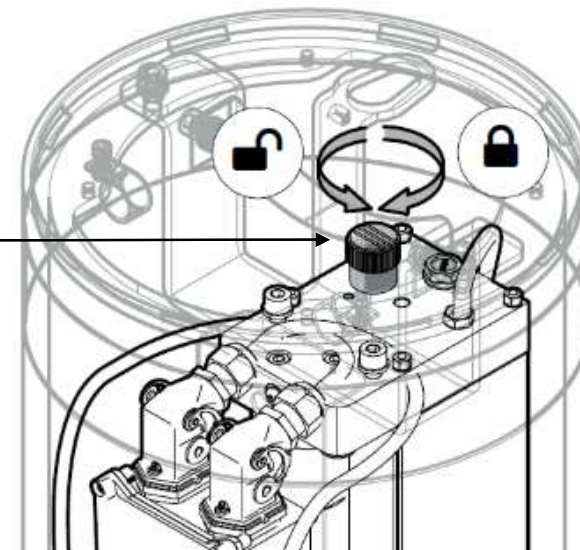


J275 2K HA

J275 2K20 HA



Modified manual release key



J275 2K20

J275 2K HA Vs J275 2K20 HA - Improvements



J275 2K HA

J275 2K20 HA



J275 2K20

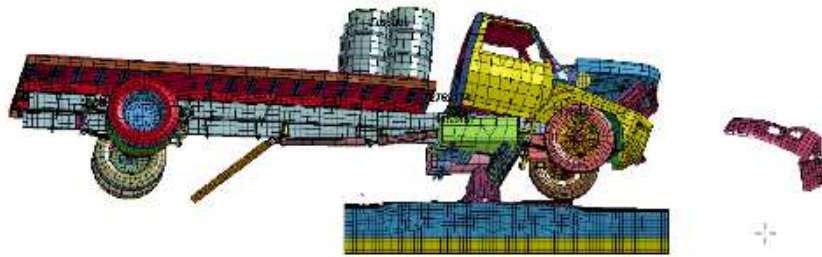


J275 2K20 F Static



Case 1a: Truck Location at 2.0 Second

K&C
D-18-24.3
PR 11



- Truck passed the bollard and stopped.
- Penetration = -0.79 m.

J275 2K20 F resistance have been verified by the notified laboratory Karagozian&Case by means of a dynamic impact simulation accordance with **ASTM F2656M standard**

The detected resistance in **single unit configuration**, corresponds to class M30 = able to stop a 6.800 Kg truck driving at 48Km/h



J275 2K20



J275 2K F Vs J275 2K20 F - Improvements



J275 2K F

J275 2K20 F

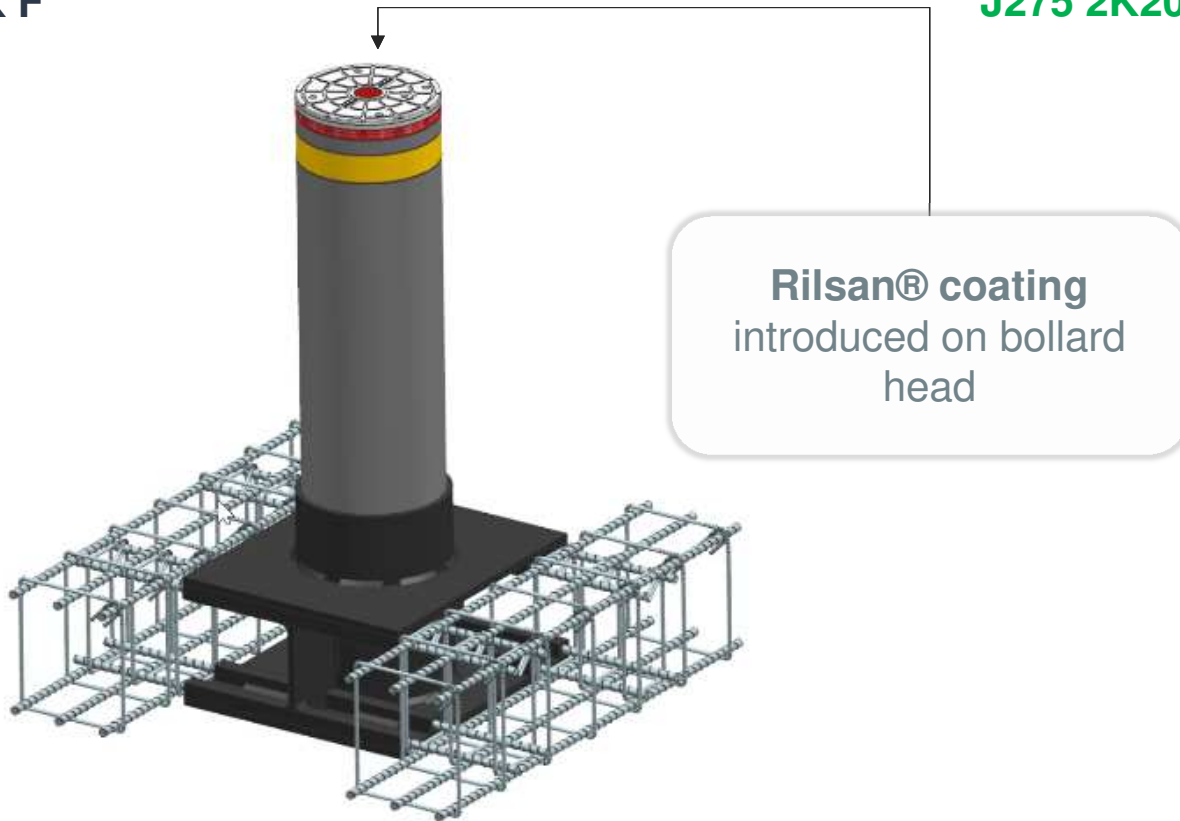


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JS Range



JS RANGE:

AUTOMATIC – HA

JS 48 HA

JS 48 HA EFO

JS 80 HA

JS 80 HA EFO

JS 48 HA STAINLESS STEEL

JS 48 HA EFO STAINLESS STEEL

JS 80 HA STAINLESS STEEL

JS 80 HA EFO STAINLESS STEEL

STATIC - F

JS 80 F

JS 80 F STAINLESS STEEL

REMOVABLE - R

JS 48 R

JS 80 R

JS 48 R STAINLESS STEEL

JS 80 R STAINLESS STEEL

REMOVABLE



JS Range



Common configuration for **all models:**

Diameter 275mm

Height 1.000mm

Protective sleeve

- mDure® with FAAC surface exclusive design
- mDure® with satin stainless steel sleeve



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JS Range



Every single model is crash rated:

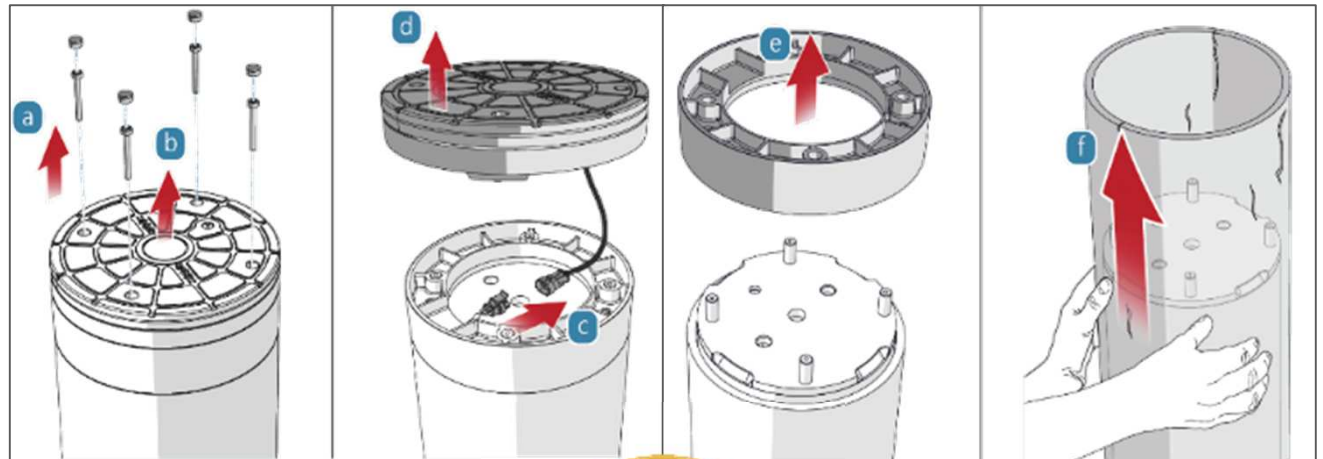
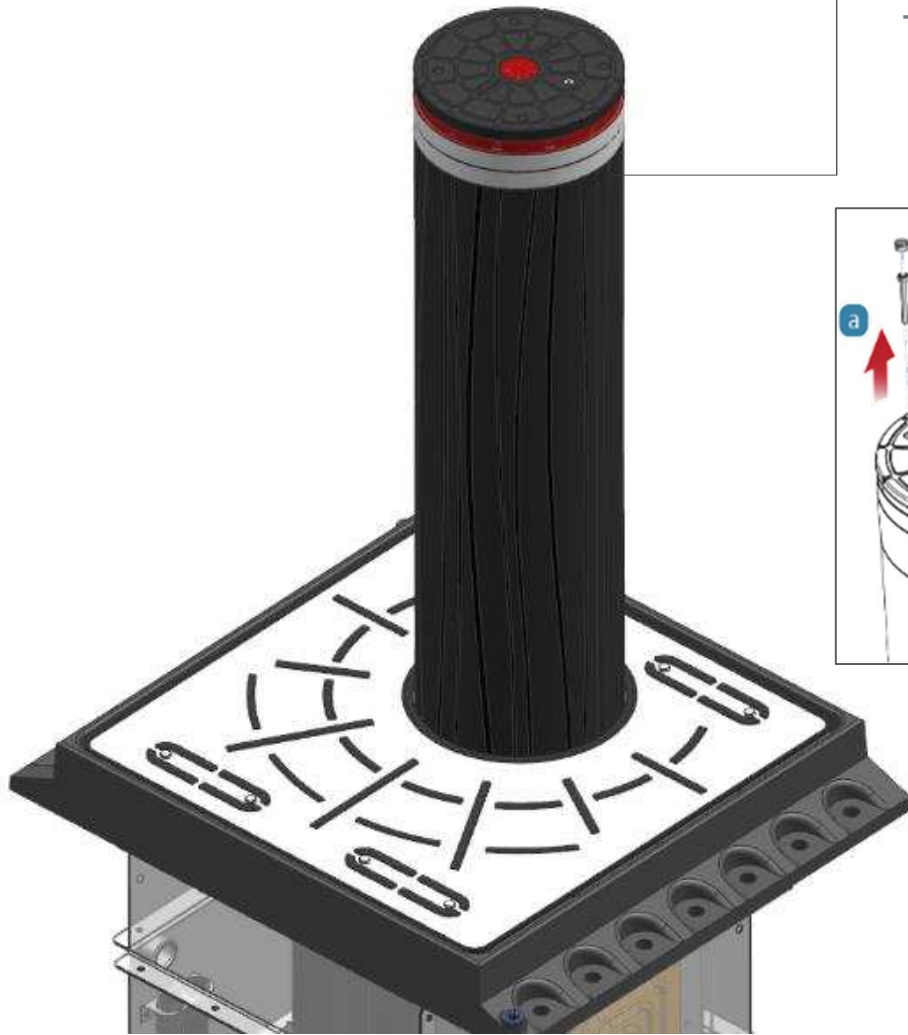
- With **actual** crash test
- In **single unit** configuration
- Certified according to **all relevant standards**
 - PAS 68
 - ASTM F2656
 - IWA 14-1



JS Range

mDure® protective sleeve

The protective sleeve can be replaced with the bollard in place.



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JS Range



TOTAL Optimization:

All models of the automatic (HA) range:

JS 48 HA	JS 48 HA STAINLESS STEEL
JS 48 HA EFO	JS 48 HA EFO STAINLESS STEEL
JS 80 HA	JS 80 HA STAINLESS STEEL
JS 80 HA EFO	JS 80 HA EFO STAINLESS STEEL

Employ

- **same pit**
- **same components**
- **same accessories**



JS Range

TOTAL Optimization:

All models of the Static (F) and Removable (R) range:

JS 80 F

JS 80 F STAINLESS STEEL

JS 48 R

JS 48 R STAINLESS STEEL

JS 80 R

JS 80 R STAINLESS STEEL

Employ

- **same underground support base**
- **same components**
- **same accessories**

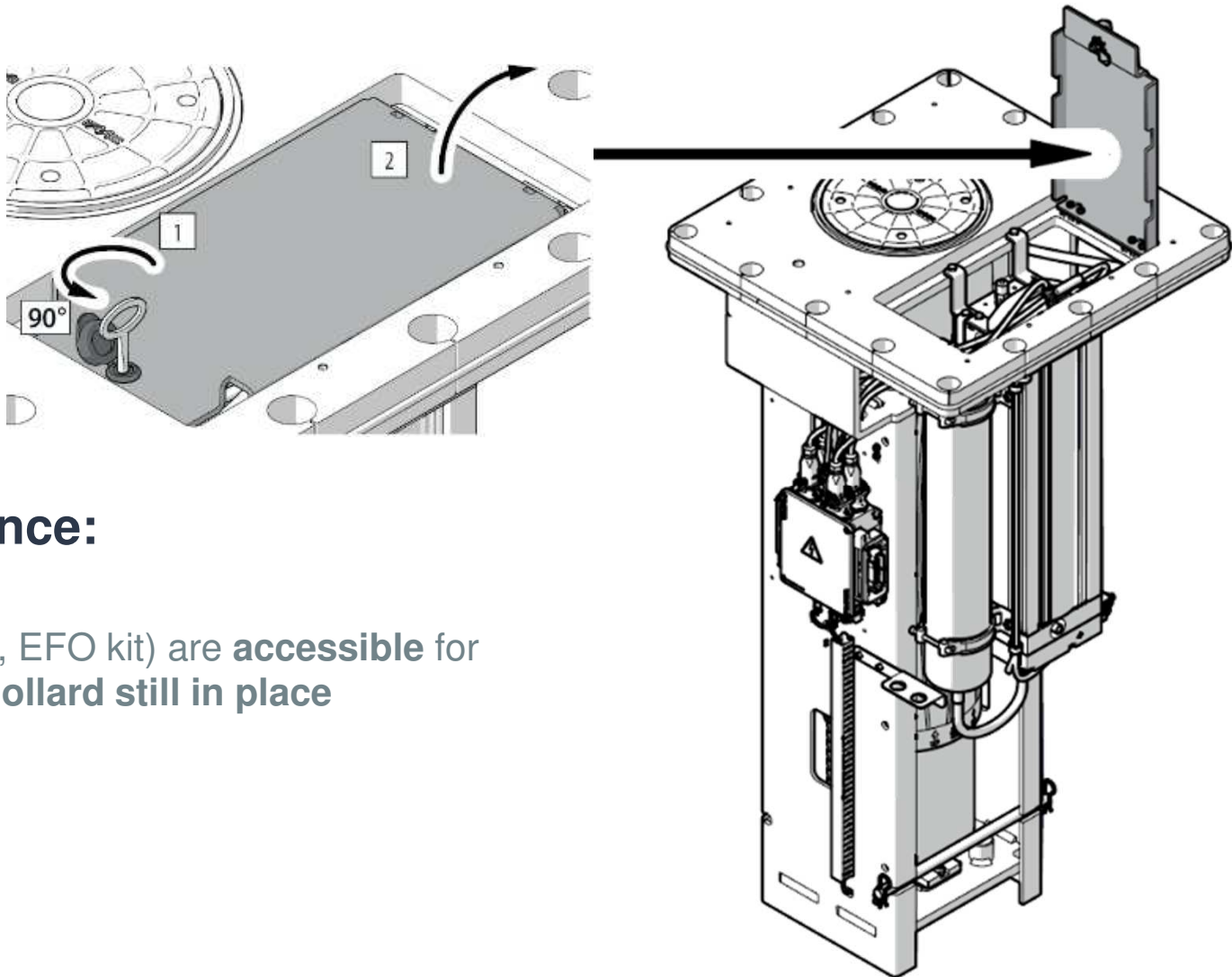


CONCEPT



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JS Range

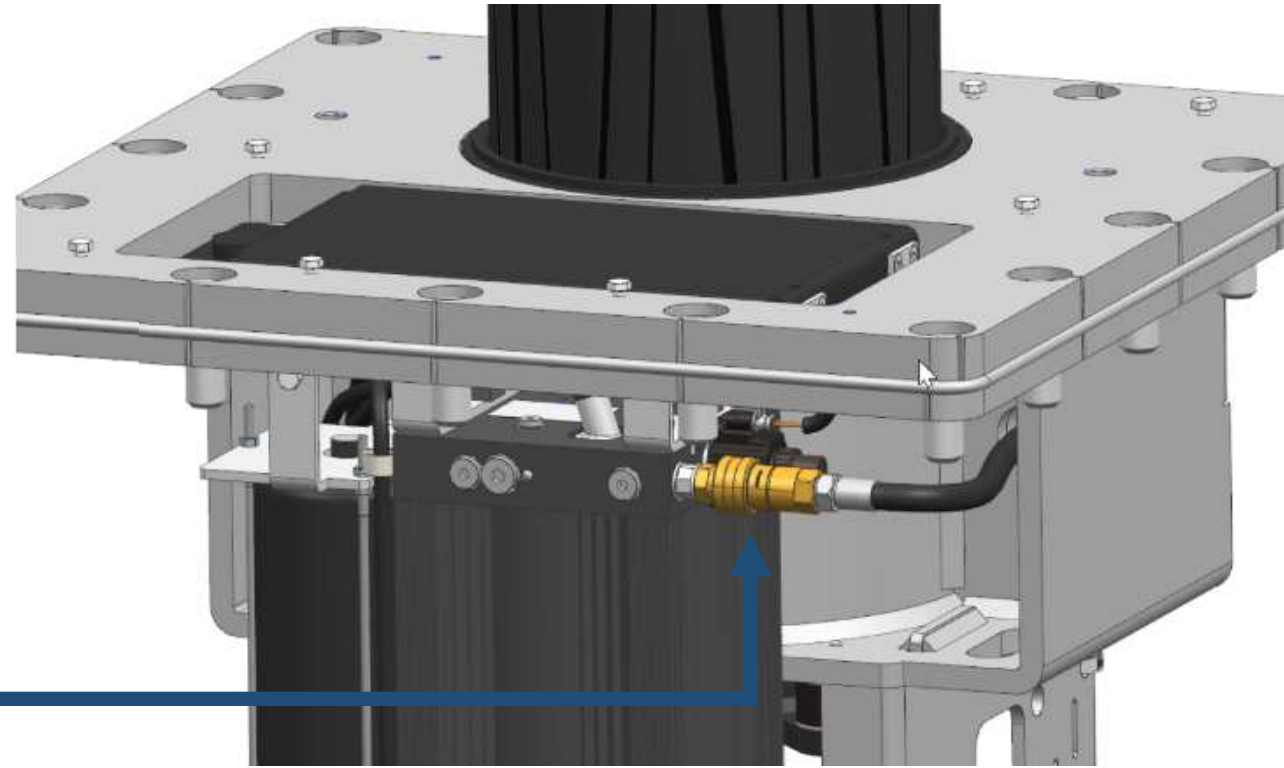
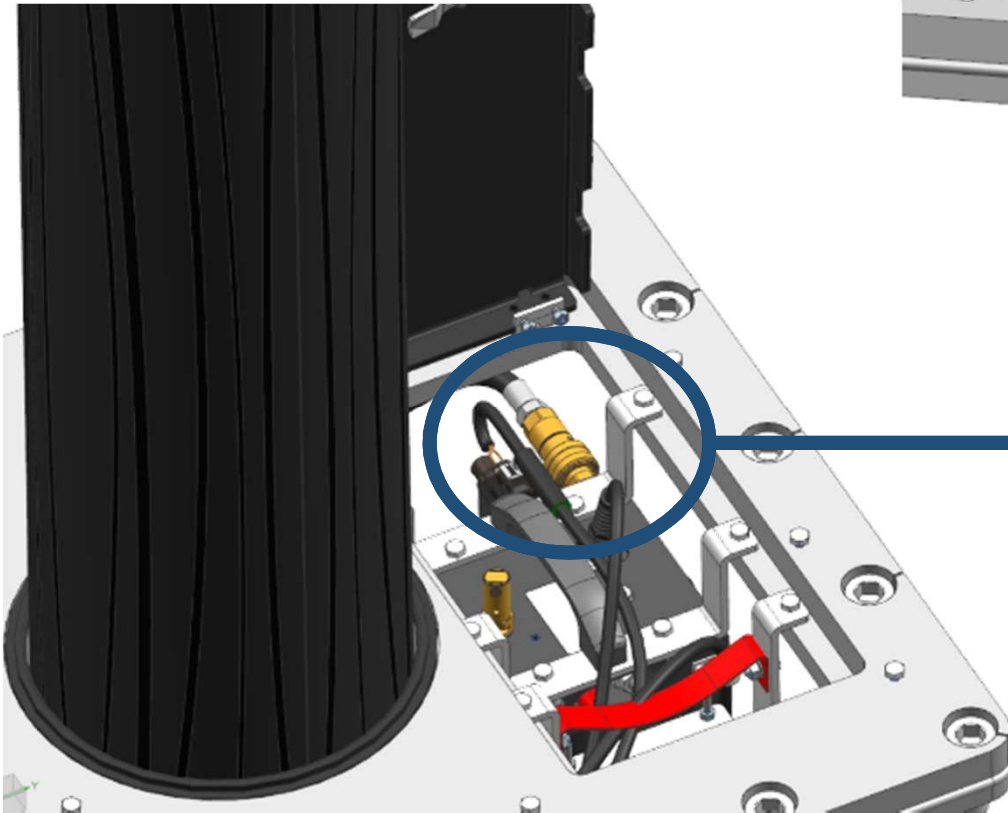


Designed to ease maintenance:

- Core components (i.e. hydraulic unit, EFO kit) are **accessible** for inspections and maintenance **with bollard still in place**



JS Range



Designed to ease maintenance:

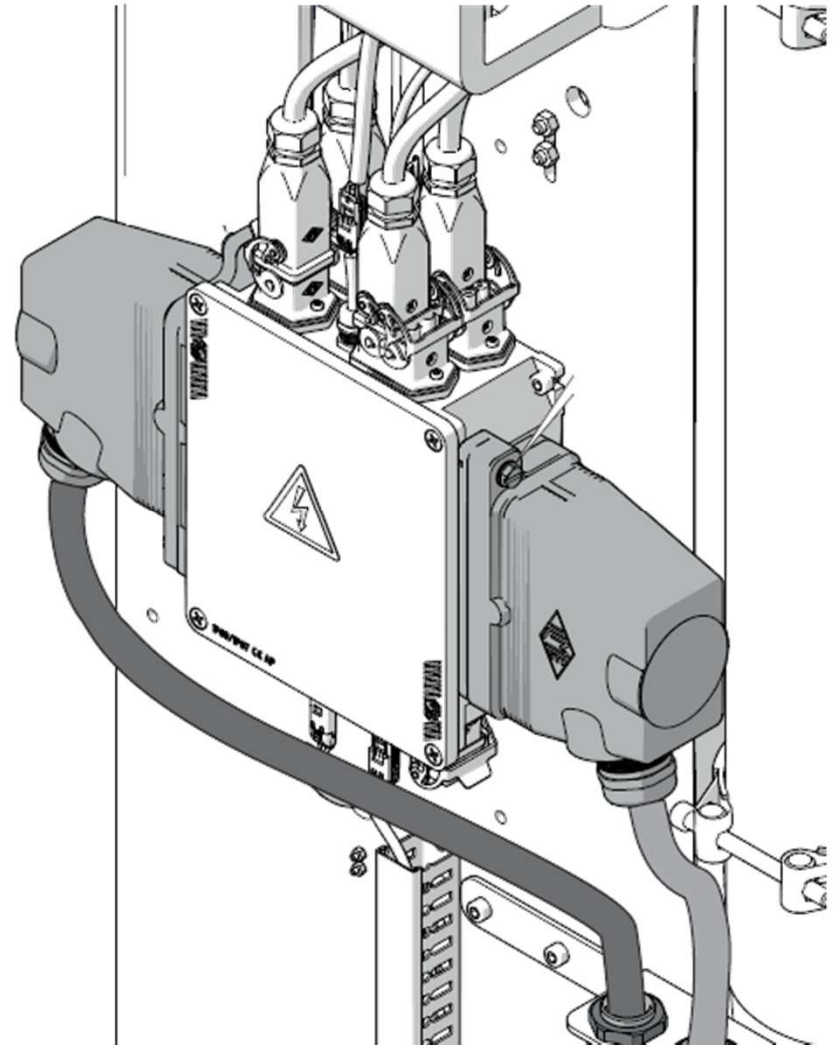
- Quick connectors to **easily detach the core components** during maintenance/ replacement operations (**no oil spill**)



JS Range

Designed to resist in worst conditions:

- **Sealed connectors** (no cable glands)
- **Delocalization of sensitive electrical components** (near the control board)
- All hydraulic valves are protected by a **Zinc-Nickle coating**



JS Range



JS48 RANGE:

AUTOMATIC – HA

- JS48 HA JS48 HA STAINLESS STEEL
- JS48 HA EFO JS48 HA EFO STAINLESS STEEL

STATIC - F

REMOVABLE - R

- JS48 R JS48 R STAINLESS STEEL



JS Range

JS48 HA Hydraulic Automatic





CSI S.p.A. Proving Ground Facility
C/da S. Maria Maddalena, 21
20080 Ternate (MI)

REA Nr. 146610
R.U. CC/PT/13.13601/00133
Cap. Soc. € 1.000.000

**Attestato di superamento del test/
Certificate of passed test**

**Dissuasore di traffico/Bollard
'JS 48 HA'**

Test n° 0172VME\HRB\19 performed on 26/11/2019

	PAS 68:2013	IWA 14-1:2013	ASTM F2656/F2656M - 18
Massa/mass	Target: 7500 ± 100 kg Test: 7380 kg	7000 ± 400 kg	7000 ± 150 kg
Velocità/speed	Target: 48 ± 0 km/h Test: 50.2 km/h	46 [47-48] km/h	60 [45-60] km/h
Angolo/angle	90°		
Componenti distaccati/ Major debris	0.75 m (2.28ft)		
Iniezione del veicolo/ Vehicle penetration	0.7 m	0.8 m	0.7 m (P1 class)

Il veicolo di prova è stato immobilizzato/
The test vehicle has been immobilized: /Yes

Il veicolo di prova è stato trattenuto o deviato/
The test vehicle was restrained or diverted: /Yes (restrained)

Il dispositivo è in grado di attivarsi dopo l'impatto/
The device is able to actuate after the impact: /Yes

Valutazione delle prestazioni / Performance ratings:

PAS 68:2013: PAS 68:2013 Movable Bollard V/7500 (N3)/48/90:0.7/0.7
 IWA 14-1:2013: IWA 14-1:2013 Movable Bollard V/7200[N3C]/48/90:0.9
 ASTM F2656/F2656M - 18: Test Method F2656 C730-P1

Proving Ground, 21/06/2020

Massimo Cucchiari
Massimo Cucchiari

CSI S.p.A. è un'azienda
certificata secondo le norme
ISO 9001:2015 e ISO 14001:2015

Sei in legge
Rotta: 20080 Ternate (MI)
C/da S. Maria Maddalena, 21
03018 Ternate (MI)
0344/2494000
www.csi-italia.com

Sei in regola
20070 Bagnoli (MI)
Via S. Maria Maddalena, 21/26
Tel. (+39) 0344/2494000
Fax (+39) 0344/2494000

0344/2494000 (MI)
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Fax (+39) 0344/2494000

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ITALIA | CHINA | EMIRATI ARABI | POLSUNIA | SPAGNA | TURCHIA

JS48 HA has been certified in accordance with:

- ASTM F2656/F2656M -18
- PAS 68: 2013
- IWA 14-1:2013

The crash test has been carried out and passed in a **single unit configuration**, with performance classifications:

- ASTM F2656/F2656M-18 - Test Method F2656 C730-P1
- PAS 68:2013 - Movable Bollard V/7500 (N3)/48/90:0.7/0.7
- IWA 14-1:2013 - Movable Bollard V/7200[N3C]/48/90:0.9

= able to stop a 7.500 Kg truck driving at 48Km/h in less than 1m (P1) and still operational after impact



JS Range



JS80 RANGE:

AUTOMATIC – HA

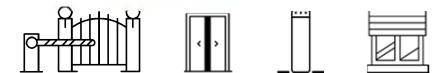
JS80 HA JS80 HA STAINLESS STEEL
JS80 HA EFO JS80 HA EFO STAINLESS STEEL

STATIC - F

JS80 F JS80 F STAINLESS STEEL

REMOVABLE - R

JS80 R JS80 R STAINLESS STEEL



JS Range

JS80 HA Hydraulic Automatic



Laboratorio Di Prova / Test Laboratory
CSI S.p.A. Proving Ground Facility
Casalino Traverosaglia, 21
20090 Sesto San Giovanni (MI)

CLIENTE / CUSTOMER:
FAAC S.p.A.
VIA MUGALARA, 30
40019 EDOLO (BOLOGNA) (BO)

REA NR 1485510
SQUADRA 113401/01101
Cogn. 346.4.1340/090

Attestato di superamento del test/ Certificate of passed test

Dissuasore di traffico/Bollard
JS 80 HA

Test n° 0174VME/HRB/19 performed on 28/11/2019

	PAS 68:2013	IWA 14-1:2013	ASTM F2656/F2656M-18
Massa/mass	Target 7500 ± 150 kg Test 7500 kg	7200 ± 400 kg 7500 kg	7200 ± 150 kg
Velocità/speed	Target 80 ± 5 km/h Test 79.8 km/h	80 (78/84) km/h	80 (78/84) km/h
Angolo/angle	60°		
Componente distaccata/ Major defect	0.81 m (3.30kg) Beyond		
Innalzamento del veicolo/ Vehicle penetration	1.0 m	1.0 m	1.0 m (P1 class)

Il veicolo di prova è stato immobilizzato?
The test vehicle has been immobilized? (Yes)

Il veicolo di prova è stato trattenuto o deviato?
The test vehicle was restrained or diverted? (Restrained/Yes)

Il dispositivo è in grado di attivarsi dopo l'impatto?
The device is able to activate after the impact? (Yes)

Valutazione delle prestazioni / Performance ratings:
PAS 68:2013 - PAS 68:2013 Movable Bollard V/7500 (N3)/80/90:1.0/0.8
IWA 14-1:2013 - IWA 14-1:2013 Movable Bollard V/7200(N3C)/80/90:1.3
ASTM F2656/F2656M-18 - Test Method F2656 C750-P1

Proving Ground: 21/05/2020

Massimo Cucchiari
Massimo Cucchiari

CSI S.p.A. è un'azienda
certificata secondo le norme
ISO 9001:2015 e ISO 14001:2015

Sei operativa
33037 Salsola (UD)
Viale Vercellotto 36/6
Tel: +39 0432 38455 1
Fax: +39 0432 38455 41
33039 Sossano (TV)
Via Lancia 10
Tel: +39 0422 4913 211
Fax: +39 0422 4913 211

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JS80 HA has been certified in accordance with:

- ASTM F2656/F2656M -18
- PAS 68: 2013
- IWA 14-1:2013

The crash test has been carried out and passed in a **single unit configuration**, with performance classifications:

- ASTM F2656/F2656M-18 - Test Method F2656 C750-P1
- PAS 68:2013 - Movable Bollard V/7500 (N3)/80/90:1.0/0.8
- IWA 14-1:2013 - Movable Bollard V/7200[N3C]/80/90:1.3

= able to stop a 7.500 Kg truck driving at **80Km/h** in less than 1m (P1) and still operational after impact

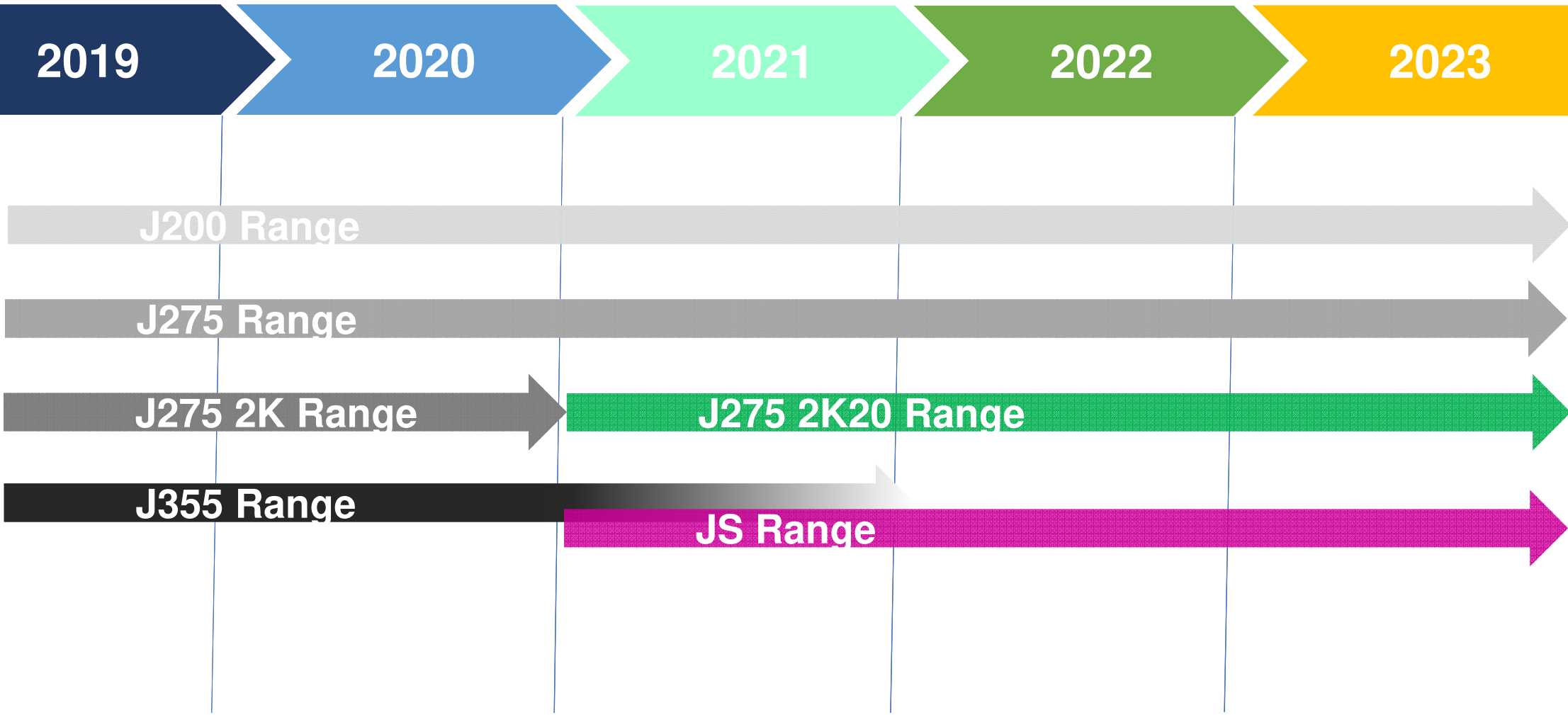


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- J275 2K20 Range
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Phase in / phase out Plan



2019

2020

2021

2022

2023

J200 Range

J275 Range

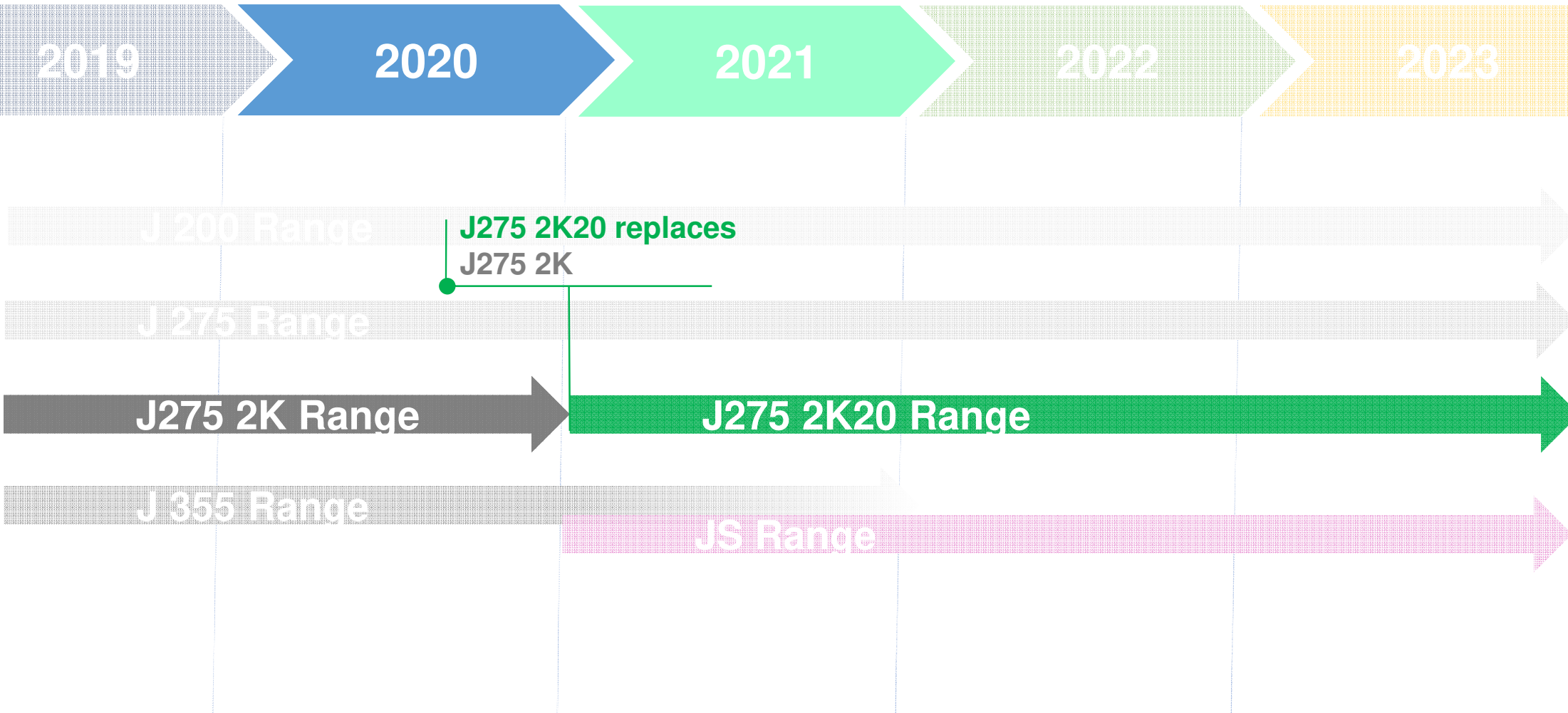
J275 2K Range

J275 2K20 Range

J355 Range

JS Range

Phase in / phase out Plan



Phase in / phase out Plan

